

STRUCTURE OF THALICMIDINE

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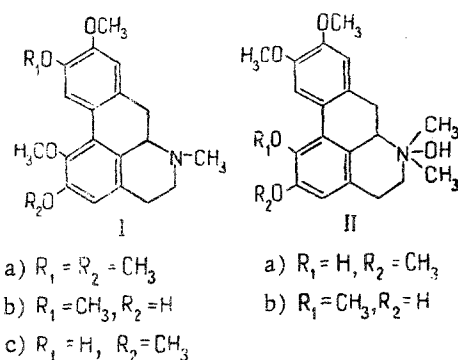
The alkaloid thalicmidine isolated from the roots of *Thalictrum minus* by S. Yu. Yunusov and N. N. Progressov [1] contains three methoxy groups and one hydroxy group (broad band in the IR spectrum at $3200-3500\text{ cm}^{-1}$). The UV spectrum of thalicmidine has three maxima at 220, 280, and $305\text{ m}\mu$ ($\log \epsilon$ 4.52, 4.12, 4.12), which are characteristic for 2, 3, 5, 6-tetrasubstituted aporphins [2]. Methylation of thalicmidine has given glaucine (Ia) and oxidation has yielded m-hemipinic acid. Consequently, the hydroxy group must occupy position 5 or 6 [3, 4]. Since thalicmidine is not identical with glaucentrine, only position 6 remains possible for the hydroxy group (Ib).

However, recently glaucentrine has been shown to be identical with corydine. Consequently, the position of the hydroxy group in thalicmidine still remains obscure.

A quaternary base with a hydroxy group in position 5 (IIa) has been isolated from *Fagara tinguassoiba* [5, 7]. The results of a direct comparison of some derivatives of thalicmidine (IIb) and the alkaloid from *F. tinguassoiba* (IIa), and also the IR spectra of their picrates, have shown that they are not identical.

Derivatives	Alkaloid from <i>F. tinguassoiba</i>	N-methyl- thalicmidine
Iodide	224-226 $[\alpha]_D + 26^\circ$	234-236 $[\alpha]_D + 18.7^\circ$
Picrate	146-151	196-198
Chloride	215-219	238-240

Thus, the structure of thalicmidine (Ib) that we have proposed is apparently correct. The statement by some authors that the hydroxy group in thalicmidine is in position 3 (Ic) is unfounded [2, 6]. The production of m-hemipinic acid by the oxidation of thalicmidine [3, 4] excludes the presence of a hydroxy group in ring A.



A sample of the picrate of the tertiary base from *Fagara tinguassoiba* was given to us by Dr. L. Marion.

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